
California Green Builder

*Created by Builders
for Builders*

Conserving Resources,
Preserving the Environment and
Measuring the Impact

*A presentation by Mark Grey, Ph.D.
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Building Industry Association of Southern California*



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State and National Program Recognition

- California Energy Commission
- California Public Utilities Commission
- California League of Cities
- National Association of Home Builders



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Highlights

- Consistent Statewide program elements
- Practical and attainable goals
- Measurable and documented environmental benefits
- Market driven and voluntary
- Industry designed & coordinated
- Low participation cost
- Per home costs range between \$3k-\$6k



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Program Elements

- Improved energy efficiency by 15%
- Saves 20,000 gallons of water per home/year
- Uses certified sustainable forest and engineered wood products
- Improves indoor air quality
- Diverts a minimum of 50% construction waste from local landfills
- Is inspected by certified 3rd party HERS raters



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Builder Benefits

- **Captures *Green* market momentum**
- **Cooperates with local jurisdictions for***
 - Advantages in the entitlement process
 - Positive product recognition
 - Improved plan check
 - Lower fees
- **Point of purchase marketing**
 - Homebuyer brochure
 - Recognition plaque – Positive branding
 - Each home is certified

*Varies by jurisdiction



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Recognition for Green Builders

- Statewide and regional media attention
- Local recognition
- Recognition in statewide *California Builder* magazine
- Annual CBIA Golden Nugget Awards competition
- California Green Builder Community website
- Inland Empire press



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California Green Builder Communities

Castle & Cook Homes, Inc.
Centex Homes – San Luis Obispo
Clarum Homes
Lennar Homes-Valencia
Pardee Homes – San Diego
Treasure Homes
Victory Homes
Victoria Homes, Inc.

Eight home builders representing 23 communities and 2,700
California Green Builder Homes

**The California Green Builder program is one of the largest green
builder programs in California and the nation.**



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Founding Sponsors



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ENVIRONMENTAL BENEFITS



Building Industry Institute
CGB-EBR

Environmental Benefit Report Typical California Green Builder Project

		Total Per Home	Total for Plan
Plan 1 Stories: 1 Square Feet: 1255 # of Units: 60	kWh Saved (per year)	735	44,100
	Number of Trees Saved	1	60
	Waste Diverted	1.13 Tons	67.8 Tons
	Water Saved (per year)	44,841 Gallons	2,690,460 Gals.
	Greenhouse Gasses (CO ₂ - per year)	645 lbs.	38,700 lbs
Plan 2 Stories: 1 Square Feet: 1403 # of Units: 61	kWh Saved (per year)	685	41,785
	Number of Trees Saved	1	61
	Waste Diverted	1.26 Tons	76.86 Tons
	Water Saved (per year)	44,841 Gallons	2,735,301 Gals.
	Greenhouse Gasses (CO ₂ - per year)	601 lbs	36,661 lbs
Plan 3 Stories: 1 Square Feet: 1558 # of Units: 61	kWh Saved (per year)	761	46,421
	Number of Trees Saved	1	61
	Waste Diverted	1.40 Tons	85.4 Tons
	Water Saved (per year)	44,841 Gallons	2,735,301 Gals.
	Greenhouse Gasses (CO ₂ - per year)	667 lbs	40,687 lbs
Plan 4 Stories: 1745 Square Feet: 1904 # of Units: 61	kWh Saved (per year)	682	41,602
	Number of Trees Saved	1	61
	Waste Diverted	1.57 Tons	95.77 Tons
	Water Saved (per year)	44,841 Gallons	2,735,301 Gals.
	Greenhouse Gasses (CO ₂ - per year)	598lbs	36,478lbs

ENVIRONMENTAL BENEFITS

- Total for Community - 243 Units
- kWh Saved (per year) 173,908
- Number of Trees Saved 243
- Waste Diverted 325.83 Tons
- Water Saved (per year) 10,896,363 Gal
- Greenhouse Gasses (CO₂) 152,526 lbs
- Total CGB Units Contracted 2,660
- Total CGB Units Built as of 2006 = 615



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Local Entities Using CGB Program

- City of Riverside
- Imperial Irrigation District

Coming Soon:

- City of Corona
- City of Perris
- City of Banning
- Riverside County

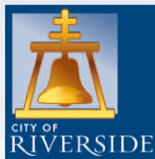


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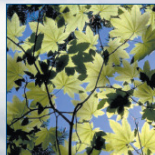


Riverside Endorses CGB Program

CONSERVING | PRESERVING | SUSTAINING



RIVERSIDE green BUILDER



Capture the green market momentum! Headline after headline repeats the growing thirst for green. Whether to protect the environment from greenhouse gases, reduce the dependence on foreign oil, or to simply reduce growing home utility bills, the voice is strong and getting louder. Jurisdictions are demanding that builders minimize their environmental footprint. Buyers are searching for homes that take their precious planet into consideration. Builders can take up the cause while differentiating themselves in the marketplace.

Riverside Green Builder (RGB) is a voluntary program primarily for production builders. RGB is based on the California Green Builder Program that is recognized by California Public Utilities Commission, the California Energy Commission and California League of Cities, and is the largest residential green builder program in California. RGB was developed by the City of Riverside and Building Industry Association, Riverside Chapter with input from home builders and other agencies. RGB is a resource effective and cost effective green building program. RGB yields measurable and documented results. A RGB certified home must meet five criteria: Energy Efficiency, Water Conservation, Waste Reduction, Wood Conservation, and Indoor Air Quality. Certified CGB/HERS raters document energy efficiency and the environmental benefits. Home designs are the result of a flexible performance based approach that allows the home builder to utilize the most cost effective means to meet the program standards.



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Project Requirements

ENERGY EFFICIENCY

- Built to exceed California Title 24 energy efficiency standards by 15%
- Improved insulation installation
- HVAC system designed by a licensed mechanical engineer
- Tight HVAC Ducts
- Certified CGB/HERS rater inspection and verification

WATER CONSERVATION

- 20,000 Gallons water saved per home per year
- Parallel hot water piping or hot water recirculation
- Reduced turf front yard landscaping
- Weather based irrigation controller

WASTE REDUCTION

- At least 50% of construction waste is diverted from landfills through recycling

WOOD CONSERVATION

- Wood must be from a certified sustainable source
- Engineered wood products must be used

INDOOR AIR QUALITY

- HVAC designed by a licensed engineer to ACCA manuals J, S and D or equivalent SMACNA or ASHRAE standards
- HVAC systems are installed per the engineered designs
- MERV 6 HVAC filters installed in return air grills
- Low or no VOC paints, lacquers, floor underlayment and carpet

Participation Benefits

- Release of electrical meters prior to final inspection
- Priority field inspection service
- Guaranteed timelines
- Overtime inspections
- Priority electrical design

Riverside Green Builder is committed to addressing the growing resource constraints, as well as helping builders satisfy growing consumer demand for "green" homes. The RGB program is driven by the program's ability to meet the needs of homebuyers, home builders and the City. Riverside Green Builders are ahead of implementing regulatory mandates while building homes that set them above the competition and deliver greater value to homebuyers.

The Numbers

4600: Homes planned & under construction
7: Riverside Green Builders
15%: Energy Savings above '05 T-24 code
650 kWh: Average yearly electricity savings per home
20,000: Gallons of water saved each year per home
50%: Minimum amount of construction waste recycled
1: Trees saved per 2-story home
100%: wood used from certified, sustainable forest products

Builders

- Building Industry Associations, Riverside Chapter

Contact

Community Development
(951) 826-5697
3900 Main Street • Riverside, CA 92522

This program is being administered by ConSol



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Building Incentives for Going Green

- Impact fee credit
- Waive plan check fees
- Design review assistance
- Technical assistance, eg. solar installation
- Density bonus
- Economic development discount
- Priority fast track approval of plans and permits
- Priority field inspections
- No additional overtime charges for inspectors to come out on weekend inspections
- Setting of meters earlier in the construction process
- Priority of city utilities scheduling etc. Priority scheduling for city utilities apply to design as well as work in the field.
- Deferment of fees to C&O
- Waiver of completion bonds
- Builders allowed to continue job-site work on City/Federal holidays
- Certification program incentives



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What is BIA/SC Recommending

- Consistency with building codes and California Energy Commission
- Institute voluntary programs and consider incentives
- Use of metrics and measurement systems.....quantifiable and verifiable
- Use of CGB program where appropriate....allow a range of certification programs



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Contact Information

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